

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/005239

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N9/90 C12P41/00 C12Q1/533 C12Q1/34 C12N15/61
C12N5/10 C12N15/63

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, PAJ, WPI Data, CHEM ABS Data, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01/23582 A (DEGUSSA ; UNIV STUTTGART (DE); ROCHE DIAGNOSTICS GMBH (DE)) 5 April 2001 (2001-04-05) the whole document	1-4
Y	EP 1 188 826 A (AJINOMOTO KK) 20 March 2002 (2002-03-20) the whole document	1-4
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

27 October 2004

Date of mailing of the international search report

21.02.05

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SIEMANN M ET AL: "A D-SPECIFIC HYDANTOIN AMIDOHYDROLASE: PROPERTIES OF THE METALLOENZYME PURIFIED FROM ARTHROBACTER CRYSTALLOPOIETES" JOURNAL OF MOLECULAR CATALYSIS. B, ENZYMATIC, ELSEVIER, AMSTERDAM,, NL, vol. 6, no. 3, 11 March 1998 (1998-03-11), pages 387-397, XP001104526 ISSN: 1381-1177 the whole document -----	2-4
A	US 2003/059816 A1 (ROYER SYLVAIN ET AL) 27 March 2003 (2003-03-27) the whole document -----	1-4

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4

Screening processes according to claims 1-4

2. claims: 5-8

Process for the preparation of improved hydantoin racemases according to claim 5, polypeptides obtainable by the process of claim 5 (or nucleic acids encoding said polypeptides), and uses of said molecules.

3. claims: 9-14 (all partially)

Hydantoin racemases containing in the position 79 an amino acid as defined in claim 9; polynucleotide sequences encoding said racemases; whole cell catalysts, vectors and microorganisms comprising said sequences; and primers for the preparation of said polynucleotides.

4. claims: 9-14 (all partially)

Hydantoin racemases containing the consensus sequence as defined in claim 10; polynucleotide sequences encoding said racemases; whole cell catalysts, vectors and microorganisms comprising said sequences; and primers for the preparation of said polynucleotides.

5. claims: 9-14(all partially)

Hydantoin racemases encoded by the polynucleotide sequences SEQ ID NOs: 3, 5, 7, or 9; whole cell catalysts, vectors and microorganisms comprising said sequences; and primers for the preparation of said polynucleotides.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/005239

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0123582	A	05-04-2001	US 6713288 B1	30-03-2004
			AU 7281700 A	30-04-2001
			WO 0123582 A1	05-04-2001
			EP 1216304 A1	26-06-2002
			JP 2003527095 T	16-09-2003
			US 2003175910 A1	18-09-2003
EP 1188826	A	20-03-2002	EP 1188826 A2	20-03-2002
			JP 2002330784 A	19-11-2002
			US 2002102713 A1	01-08-2002
US 2003059816	A1	27-03-2003	WO 03052374 A2	26-06-2003